Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	5	"909012".ap.	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2005/02/23 15:55
L2	5684	"Hepatitis C virus"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2005/02/23 16:00
L3	1115	"Hepatitis C virus" and protease with inhibitor	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2005/02/23 16:00
L4	251	"Hepatitis C virus" and serine with protease with inhibitor	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2005/02/23 16:00
L5	120	"Hepatitis C virus" same serine with protease with inhibitor	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2005/02/23 16:00
L6	110	"Hepatitis C virus" same serine with protease with inhibitor and NS3	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2005/02/23 16:01
L7	105	"Hepatitis C virus" same NS3 with serine with protease with inhibitor	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2005/02/23 16:02
L8	105	"Hepatitis C virus" same NS3 with serine with protease with inhibitor and compound	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2005/02/23 16:02
L9	88	18 and pharmaceutical	US-PGPUB; USPAT; EPO; DERWENT	OR .	ON	2005/02/23 16:02
L10	76	I8 and pharmaceutical and assay	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2005/02/23 16:02
L11	11	I8 and pharmaceutical and assay and "Ki value"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2005/02/23 16:03

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     10 DEC 17
                COMPUAB reloaded; updating to resume; current-awareness
                alerts (SDIs) affected
                SOLIDSTATE reloaded; updating to resume; current-awareness
NEWS
     11 DEC 17
                alerts (SDIs) affected
     12 DEC 17
                CERAB reloaded; updating to resume; current-awareness
NEWS
                alerts (SDIs) affected
NEWS
     13 DEC 17
                THREE NEW FIELDS ADDED TO IFIPAT/IFIUDB/IFICDB
     14 DEC 30 EPFULL: New patent full text database to be available on STN
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NEWS
     15 DEC 30 CAPLUS - PATENT COVERAGE EXPANDED
NEWS
     16 JAN 03 No connect-hour charges in EPFULL during January and
                 February 2005
NEWS
     17 JAN 26
                CA/CAPLUS - Expanded patent coverage to include the Russian
                Agency for Patents and Trademarks (ROSPATENT)
NEWS
     18 FEB 10
                STN Patent Forums to be held in March 2005
                STN User Update to be held in conjunction with the 229th ACS
NEWS
     19 FEB 16
                National Meeting on March 13, 2005
             JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT
NEWS EXPRESS
             MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
             AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005
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=> index bioscience

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- => "Hepatitis C virus" and NS3 and serine and protease and inhibitor and compound
 - 6 FILE ADISINSIGHT
 - 1 FILE BIOENG
 - 23 FILE BIOSIS
 - 4 FILE BIOTECHABS
 - 4 FILE BIOTECHDS
 - 9 FILE BIOTECHNO ~
 - 15 FILES SEARCHED...
 - 1 FILE CANCERLIT
 - 64 FILE CAPLUS
 - 31 FILE DDFU
 - 26 FILES SEARCHED...
 - 335 FILE DGENE
 - 27 FILES SEARCHED...
 - 44 FILE DRUGU
 - 60 FILE EMBASE 15 FILE ESBIOBASE
 - 35 FILES SEARCHED...
 - 1 FILE GENBANK
 - 43 FILE IFIPAT
 - 1 FILE JICST-EPLUS
 - 10 FILE LIFESCI
 - 49 FILES SEARCHED...
 - 33 FILE MEDLINE
 - 19 FILE PASCAL
 - 7 FILE PHAR
 - 1 FILE PHARMAML
 - 4 FILE PROMT
 - 61 FILES SEARCHED...
 - 82 FILE PROUSDDR
 - 26 FILE SCISEARCH
 - 1 FILE SYNTHLINE
 - 11 FILE TOXCENTER
 - 329 FILE USPATFULL
 - 39 FILE USPAT2

- 48 FILE WPIDS
- 73 FILES SEARCHED...
 - 2 FILE WPIFV
 - 48 FILE WPINDEX
- 31 FILES HAVE ONE OR MORE ANSWERS, 75 FILES SEARCHED IN STNINDEX
- L1 QUE "HEPATITIS C VIRUS" AND NS3 AND SERINE AND PROTEASE AND INHIBITOR AND COMPOUND

=> d	rank		
F1		335	DGENE
F2		329	USPATFULL
F3		82	PROUSDDR
F4		64	CAPLUS
F5		60	EMBASE
F6		48	WPIDS
F7		48	WPINDEX
F8		44	DRUGU
F9		43	IFIPAT
F10		39	USPAT2
F11		33	MEDLINE
F12		31	DDFU ,
F13		26	SCISEARCH
F14		23	BIOSIS
F15		19	PASCAL
F16		15	ESBIOBASE
F17		11	TOXCENTER
F18		10	LIFESCI
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F23		4	BIOTECHDS
F24		4	PROMT
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F26		1	BIOENG
F27		1	CANCERLIT
F28		1	GENBANK
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F30		• 1	PHARMAML
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=> "Hepatitis C virus" and NS3 and serine and protease and inhibitor and compound and pharmaceutical and assay

L2 7 "HEPATITIS C VIRUS" AND NS3 AND SERINE AND PROTEASE AND INHIBITO R AND COMPOUND AND PHARMACEUTICAL AND ASSAY

=> d ti 1-7

- L2 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
- TI Preparation of peptides as NS3-serine protease inhibitors of hepatitis C virus
- L2 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
- TI Preparation of peptides as NS3-serine protease inhibitors of hepatitis C virus
- L2 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
- TI Preparation of nucleoside derivatives as **inhibitors** of RNA-dependent RNA viral polymerase
- L2 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
- TI Preparation of macrocyclic NS3-serine protease inhibitors of hepatitis C virus comprising alkyl and aryl alanine p2 moieties
- L2 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
- TI Pentacyclic compounds useful as inhibitors of hepatitis C virus NS3 helicase
- L2 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
- TI Preparation of peptide analogs as inhibitors of serine proteases, particularly hepatitis C virus NS3 protease
- L2 ANSWER 7 OF 7 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
- TI Prime site binding inhibitors of a serine protease: NS3/4A of hepatitis C virus.

=> d ab bib 1-7

- L2 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
- The invention discloses novel peptides I [Y is alkyl, alkylaryl, heteroalkyl, heteroaryl, aryl- or alkylheteroaryl, cycloalkyl, alkyloxy, alkylaryloxy, aryloxy, heteroaryloxy, heterocycloalkyloxy, cycloalkyloxy, alkylamino, arylamino, alkylarylamino, arylamino, heteroarylamino, cycloalkylamino, or heterocycloalkylamino; R1 is acyl; Z is O, N, CH or CR; R, R2-R4 are H, alkyl, alkenyl, cycloalkyl, heterocycloalkyl, alkoxy, aryloxy, alkylthio, arylthio, amino, amido, ester, carboxylic acid, carbamate, urea, ketone, aldehyde, cyano, nitro, halo, (cycloalkyl)alkyl, or (heterocycloalkyl)alkyl; W, Q, G, J, L, M independently may be present or absent; W is CO, CS, C(:N-CN), or SO2; Q is CH, N, P, alkylidene, O, NR, S, or SO2; A is O, CH, alkylidene, NR, S, SO2, or a bond; E is CH, N,

alkylidene, or a double bond; G is alkylidene; J is alkylidene, SO2, NH, NR, or O; L is CH, CR, O, S, or NR; M is O, NR, S, SO2, or alkylidene (with provisos)] which have HCV protease inhibitory activity as well as methods for preparing such compds. In another embodiment, the invention discloses pharmaceutical compns. comprising such compds. as well as methods of using them to treat disorders associated with the HCV protease. Thus, peptide II was prepared by the solid-phase method and showed Ki = 1-100 nM (category A) in the HCV continuous assay.

AN 2003:912843 CAPLUS

DN 139:381756

TI Preparation of peptides as NS3-serine protease inhibitors of hepatitis C virus

IN Saksena, Anil K.; Girijavallabhan, Viyyoor Moopil; Lovey, Raymond G.; Jao, Edwin; Bennett, Frank; Mccormick, Jinping L.; Wang, Haiyan; Pike, Russell E.; Bogen, Stephane L.; Chan, Tin-Yau; Liu, Yi-tsung; Zhu, Zhaoning; Njoroge, F. George; Arasappan, Ashok; Parekh, Tejal; Ganguly, Ashit K.; Chen, Kevin X.; Venkatraman, Srikanth; Vaccaro, Henry A.; Pinto, Patrick A.; Santhanam, Bama; Kemp, Scott Jeffrey; Levy, Odile Esther; Lim-Wilby, Marguerita; Tamura, Susan Y.; Wu, Wanli; Hendrata, Siska; Huang, Yuhua

PA USA

SO U.S. Pat. Appl. Publ., 629 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
ΡI	US 2003216325	A1	20031120	US 2001-908955	20010719		
	US 2004254117	A9	20041216				
	ZA 2002010312	A	20040329	ZA 2002-10312	20021219		
PRAI	US 2000-220108P	P	20000721				
os	MARPAT 139:381756						

L2 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN

The invention discloses novel peptides I [Y is alkyl, alkylaryl, AΒ heteroalkyl, heteroaryl, aryl- or alkylheteroaryl, cycloalkyl, alkyloxy, alkylaryloxy, aryloxy, heteroaryloxy, heterocycloalkyloxy, cycloalkyloxy, alkylamino, arylamino, alkylarylamino, arylamino, heteroarylamino, cycloalkylamino, or heterocycloalkylamino; R1 is acyl; Z is selected from O, N, CH or CR; R, R2-R4 are H, alkyl, alkenyl, cycloalkyl, heterocycloalkyl, alkoxy, aryloxy, alkylthio, arylthio, amino, amido, ester, carboxylic acid, carbamate, urea, ketone, aldehyde, cyano, nitro, halo, (cycloalkyl)alkyl, or (heterocycloalkyl)alkyl; W, Q, G, J, L, M independently may be present or absent; W is CO, CS, C(:N-CN), or SO2; Q is CH, N, P, alkylidene, O, NR, S, or SO2; A is O, CH, alkylidene, NR, S, SO2, or a bond; E is CH, N, alkylidene, or a double bond; G is alkylidene; J is alkylidene, SO2, NH, NR, or O; L is CH, CR, O, S, or NR; M is O, NR, S, SO2, or alkylidene (with provisos)] which have HCV protease inhibitory activity as well as methods for preparing such compds. In another embodiment, the invention discloses pharmaceutical compns. comprising such compds. as well as methods of using them to treat disorders associated with the HCV protease. Thus, peptide II was prepared and showed Ki = 1-100 nM (category A) in the HCV continuous assay.

AN 2003:591204 CAPLUS

DN 139:149928

TI Preparation of peptides as NS3-serine protease inhibitors of hepatitis C virus

IN Saksena, Anil K.; Girijavallabhn, Viyyoor M.; Lovey, Raymond G.; Jao, Edwin; Bennett, Frank; McCormick, Jinping L.; Wang, Haiyan; Pike, Russell

E.; Bogen, Stephane L.; Chan, Tin-yau; Liu, Yi-tsung; Zhu, Zhaoning; Njoroge, George F.; Arasappan, Ashok; Parekh, Tejal; Ganguly, Ashit K.; Chen, Kevin X.; Venkatraman, Srikanth; Vaccaro, Henry A.; Pinto, Patrick A.; Santhanam, Bama; Kemp, Scott Jeffrey; Levy, Odile Esther; Lim-Wilby, Marguerita; Tamura, Susan Y.; Wu, Wanli; Hendrata, Siska; Huang, Yuhua; Wong, Jesse K.; Nair, Latha G.

PA Schering Corporation, USA; Corvas International, Inc.; Dendreon Corp.

SO PCT Int. Appl., 633 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

TIM. CIT I																		
	PATENT NO.					KIND DATE								DATE				
PI	WO	2003	0622	65		A2	A2 20030731			Ī	WO 2	003-1	US14:	30		20030116		
	WO	2003062265		A3	A3 200409		0916											
		W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
			co,	CR,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	HR,	HU,
			ID,	IL,	IN,	IS,	JP,	KG,	KR,	ΚZ,	LC,	LK,	LR,	LT,	LU,	LV,	MA,	MD,
			MG,	MK,	MN,	MX,	MZ,	NO,	NZ,	PH,	PL,	PT,	RO,	RU,	sc,	SE,	SG,	SK,
			SL,	ТJ,	TM,	TN,	TR,	TT,	${f TZ}$,	UA,	UZ,	VC,	VN,	YU,	ZA,	zM		
		RW:	GH,	GM,	KΕ,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
			KG,	ΚZ,	MD,	RU,	ТJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
			FI,	FR,	GB,	GR,	ΗU,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	SI,	SK,	TR,	BF,
			ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG	
	ΕP	1481	000			A2		2004	1201	EP 2003-731956 '					•	20030116		
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
			ΙE,	SI,	LT,	LV,	FΙ,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	ΗU,	SK	
PRAI	US	2002	-523	86		Α		2002	0118									
	WO	2003	-US1	430		W		2003	0116									
os	MAI	RPAT	139:	1499	28													

L2 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN

The present invention provides nucleoside compds. I, wherein R1 AB is alkenyl, alkynyl, alkyl, wherein alkyl is unsubstituted or substituted with hydroxy, amino, alkoxy, alkylthio, one to three fluorine atoms; R2 is hydrogen, fluorine, hydroxy, mercapto, alkoxy, alkyl; or R1 and R2 together with the carbon atom to which they are attached form a 3- to 6-membered saturated monocyclic ring system optionally containing a heteroatom selected from O, S, and NC-alkyl; R3 and R4 are each independently hydrogen, cyano, azido, halogen, hydroxy, mercapto, amino, alkoxy, alkenyl, alkynyl, alkyl; R5 is hydrogen, alkylcarbonyl, phosphate; R6 and R7 are each independently hydrogen, Me, hydroxymethyl, or fluoromethyl; R8 is hydrogen, alkyl, alkynyl, halogen, cyano, carboxy, alkyloxycarbonyl, azido, amino, alkylamino, di(alkyl)amino, hydroxy, alkoxy, alkylthio, alkylsulfonyl, alkylaminomethyl, cycloheteroalkyl; R9 is hydrogen, cyano, nitro, alkyl, NHCONH2, amide, thioamide, ester, C(=NH)NH2, hydroxy, alkoxy, amino, alkylamino, di(alkyl)amino, halogen, (1,3-oxazol-2-yl), (1,3-thiazol-2-yl), or (imidazol-2-yl); R10 and R11 are each independently hydrogen, hydroxy, halogen, alkoxy, amino, alkylamino, di(alkyl)amino, cycloalkylamino, di(cycloalkyl)amino, cycloheteroalkyl, and certain derivs. thereof which are inhibitors of RNA-dependent RNA viral polymerase. These compds. are inhibitors of RNA-dependent RNA viral replication and are useful for the treatment of RNA-dependent RNA viral infection. They are particularly useful as inhibitors of hepatitis C virus (HCV) NS5B polymerase, as inhibitors of HCV replication, and/or for the treatment of hepatitis C infection. The invention also describes

pharmaceutical compns. containing such nucleoside compds.

Page 6

alone or in combination with other agents active against RNA-dependent RNA viral infection, in particular HCV infection. Also disclosed are methods of inhibiting RNA-dependent RNA polymerase, inhibiting RNA-dependent RNA viral replication, and/or treating RNA-dependent RNA viral infection with the nucleoside compds. of the present invention. Thus, 4-amino-7-(2-C-methyl-β-D-arabinofuranosyl)-7H-pyrrolo[2,3d]pyrimidine was prepared as inhibitors of RNA-dependent RNA viral polymerase. Representative compds. tested in the HCV NS5B polymerase assay exhibited IC's less than 100 μM. The nucleoside derivs. were also screened for cytotoxicity against cultured hepatoma (HuH-7) cells containing a sub-genomic HCV Replicon in an MTS cell-based assay. 2002:555511 CAPLUS 137:109450

AN

DN

ΤI Preparation of nucleoside derivatives as inhibitors of RNA-dependent RNA viral polymerase

IN Carroll, Steven S.; Maccoss, Malcolm; Olsen, David B.; Bhat, Balkrishen; Bhat, Neelima; Cook, Phillip Dan; Eldrup, Anne B.; Prakash, Thazha P.; Prhavc, Marija; Song, Quanlai

Merck & Co., Inc., USA; Isis Pharmaceuticals, Inc. PA

PCT Int. Appl., 85 pp. SO CODEN: PIXXD2

DTPatent

English LA

FAN.CNT 2

PATENT NO.			KIN	D DATE	APPLICATION NO.	DATE
ΡI	WO	2002057287	A2	20020725	WO 2002-US3086	
	WO 2002057287			20021010		•
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		•			DZ, EC, EE, ES, FI,	
		GM, HR,	HU, ID,	IL, IN, IS,	JP, KE, KG, KR, KZ,	LC, LK, LR, LS,
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					GR, IE, IT, LU, MC,	
		BF, BJ,			GN, GQ, GW, ML, MR,	
		2434386			CA 2002-2434386	
					US 2002-52318	20020118
				20040817		
		200300338	A	20031015	EE 2003-338	20020118
	EP				EP 2002-709299	
					GB, GR, IT, LI, LU,	NL, SE, MC, PT,
		·		FI, RO, MK,	•	
					BR 2002-6614	
	JP	2004520367	T2	20040708	JP 2002-557963	20020118
	NZ	526703 2004072788	Α	20041224	NZ 2002-526703 US 2003-431657	20020118
	US	2004072788	A1	20040415	US 2003-431657	20030507
		2003005078			ZA 2003-5078	
	_		A		BG 2003-108000	
		2003003289	A A1		NO 2003-3289	
DDAT		2004067901	AI		US 2003-688691	20031017
PRAI		2001-263313P		20010122		
		2001-282069P		20010406		
		2001-299320P				
		2001-344528P 2002-52318	A3	20011025 20020118		
			A3			
	WO	2002-US3086	M	20020118		

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os
     MARPAT 137:109450
     ANSWER 4 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
L2
     Macrocyclic compds. I [E, X, Y may be independently present or
ΑB
      absent, and if present may be (un) substituted (cyclo) alkyl, aryl,
     heteroalkyl, heteroaryl, ether, amino, sulfide, sulfone, amide,
      sulfonamide, urea, carbamate, hydrazide, carbonyl, etc.; R1 = acyl or
     boryl groups; Z = O, N, or CH; W = null, CO, CS, SO2, C:NR (R = H, alkyl,
      cycloalkyl, aryl, etc.); Q = (NR)p (p = 0-6), O, S, CH2, CHR, CRR' (R' =
      any group given for R) or a double bond toward V; A = O, CH2, (CHR)p,
      (CHRCHR')p, (CRR')p, NR, S, SO2, CO or a bond; G = (CH2)p, (CHR)p,
      (CRR')p, NR, O, S, SO2, SO2NH, CO or a bond towards E or V; R2, R3, R4 =
     H, (un) substituted (hetero) alkyl, -aryl or -cycloalkyl, alkoxy, aryloxy, alkylthio, arylthio, amino, amido, ester, carboxylic acid, carbamate,
     urea, ketone, aldehyde, cyano, nitro, etc.], including enantiomers and
     pharmaceutically acceptable salts, were prepared as hepatitis
      C virus (HCV) protease inhibitors.
     Thus, peptide II was prepared by a multistep procedure involving cyclization
      of intermediate cyclopentadiene-η6-ruthenium-4-chlorophenylpropionic
      acid-cyclohexylglycine-m-tyrosine-OMe. II showed Ki = 0.001-1.0 \mu M in
      the HCV protease assay. The invention also discloses
     pharmaceutical compns. comprising I as well as methods of using
      them to treat disorders associated with the HCV protease.
      2001:798207 CAPLUS
AN
      135:344735
DN
      Preparation of macrocyclic NS3-serine protease
TI
      inhibitors of hepatitis C virus
      comprising alkyl and aryl alanine p2 moieties
      Venkatraman, Srikanth; Chen, Kevin X.; Arasappan, Ashok; Njoroge, F.
IN
      George; Girijavallabhan, Viyyoor M.; Chan, Tin-Yau; McKittrick, Brian A.;
      Prongay, Andrew J.; Madison, Vincent S.
      Schering Corporation, USA
PA
      PCT Int. Appl., 218 pp.
SO
      CODEN: PIXXD2
DT
      Patent
      English
LA
FAN.CNT 1
                                                 APPLICATION NO.
                             KIND
                                     DATE
                                                                               DATE
      PATENT NO.
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      ______
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      WO 2001081325
                                                   WO 2001-US12530
                                                                               20010417
                              A2
                                     20011101
PΙ
      WO 2001081325
                             A3
                                     20020801
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               TJ, TM
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                                      20011101
                                                   CA 2001-2406532
                                                                               20010417
      CA 2406532
                              AA
      US 2002016294
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                                      20020207
                                                   US 2001-836636
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      BR 2001010104
                                      20030107
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                              А
      EP 1274724
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                                      20030115
                                                   EP 2001-927142
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               AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
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JP 2001-578418

NZ 2001-521456

ZA 2002-8014

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ZA 2002008014

NZ 521456

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20031021

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NO 2002-5030
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                                  20021218
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PRAI US 2000-198204P
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                                  20010417
os
     MARPAT 135:344735
     ANSWER 5 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
1.2
AB '
     A series of 2,3,5-trisubstituted-1,2,4-thiadiazol-2-ium salts is reported
     by Vertex Pharmaceuticals to possess inhibitory properties
     against NS3, a multifunctional (serine
     protease and NTPase/helicase) protein of hepatitis
     C virus (HCV), the causative agent of non-A, non-B
     hepatitis. These compds. were prepared by simple synthetic
     procedures and assayed in vitro for their inhibitory properties of
     different enzymic activity of NS3, such as the unwinding
     assay, the spectrophotometric ATPase assay, as well as
     the HPLC ATPase activity assay. Some of them showed in vitro
     inhibitory activity in the low micromolar range, making them interesting
     leads for the development of more efficient HCV helicase
     inhibitors. No in vivo data are presented.
AN
     2000:799386 CAPLUS
ΤI
     Pentacyclic compounds useful as inhibitors of
     hepatitis C virus NS3 helicase
ΑU
     Anon.
SO
    Expert Opinion on Therapeutic Patents (2000), 10(11), 1777-1779
     CODEN: EOTPEG; ISSN: 1354-3776
PB
     Ashley Publications Ltd.
DT
     Journal
LA
     English
               THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 5
               ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 6 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
L2
     The present invention relates to compds. I [G1 = SH, OH, SMe,
AB
     alkenyl, alkynyl, CF3, C1-2 alkoxy, C1-2 alkylthio, (un)substituted C1-3
     alkyl; W1 = COCF2CH2N(G4)U, CHO, COG2, COCF2CF3, COCOG2, COCO2G2, B(Q1)2;
     G2 = alkyl, aryl, aralkyl, (un)substituted mono-, bi-, or tricyclic
     heterocycle; G4 = alky, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkenyl, aryl, aralkenyl, etc.; Q1 = OH, alkoxy, aryloxy, or Q1-Q1 form a 5-7 membered ring; U = H, G9CO, G9SO2, G9COCO,
     (G9) 2NCOCO, (G9) 2NSO2, (G9) 2NCO, G9O2C; G9 = H, alkyl, carboxyalkyl, alkenyl, aryl, aralkyl, aralkenyl, cycloalkyl, heterocycloalkyl, etc; or
     G9-G9 form a ring; E4 = bond, \alpha-amino acid residue, heterocyclic
     amino acid; E5-E8 = independently bond, amino acid residue; 1-2 peptide
     bonds between E5-E8 may be reduced], methods and pharmaceutical
     compns. for inhibiting proteases, particularly serine
     proteases, and more particularly HCV NS3
     proteases. The compds., and the compns. and methods
     that utilize them, can be used, either alone or in combination to inhibit
     viruses, particularly HCV virus. Thus, peptide aldehyde II was prepared
     using solid-phase methods on a benzhydrylamine resin and
     tert-butoxycarbonyl (Boc) and 9-fluorenylmethoxycarbonyl (Fmoc) protection
     starting from protected hydrazone III. Nearly 200 compds. I
     were prepared and tested for hepatitis C virus
     NS3 protease inhibitory activity, with II exhibiting Ki
     <1 µM in an in vitro assay.
ΔN
     1998:268513 CAPLUS
DN
     128:321945
TI
     Preparation of peptide analogs as inhibitors of serine
     proteases, particularly hepatitis C
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23/02/200516:17Print selected from Online session virus NS3 protease IN Tung, Roger D.; Harbeson, Scott L.; Deininger, David D.; Murcko, Mark A.; Bhisetti, Govinda Rao; Farmer, Luc J. Vertex Pharmaceuticals Inc., USA; Tung, Roger D.; Harbeson, Scott L.; PA Deininger, David D.; Murcko, Mark A.; Bhisetti, Govinda Rao; Farmer, Luc J. PCT Int. Appl., 128 pp. SO CODEN: PIXXD2 DTPatent English LA FAN.CNT 1 KIND DATE APPLICATION NO. WO 9817679 PATENT NO. DATE _____ ------19980430 WO 1997-US18968 PΙ 19971017 W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG,

RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG CA 2268391 CA 1997-2268391 AA19980430 19971017 ZA 9709327 Α 19980511 ZA 1997-9327 19971017 AU 1998-51477 AU 9851477 A1 19980515 19971017 AU 719984 B2 20000518 EP 932617 A1 19990804 EP 1997-946273 19971017 EP 932617 B1 20020116 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO IN 183120 19990911 IN 1997-CA1951 Α 19971017 BR 9712544 Α 19991019 BR 1997-12544 19971017 CN 1238780 Α 19991215 CN 1997-180151 19971017 В CN 1133649 20040107 NZ 1997-335276 NZ 335276 Α 20000929 19971017 T2 T2 20010227 JP 1998-519568 A1 20010926 EP 2001-109433 JP 2001502694 19971017 EP 1136498 19971017 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

ΑT	212037	E	20020215	ΑT	1997-946273	19971017
ES	2169880	T 3	20020716	ES	1997-946273	19971017
ΕE	4023	B1	20030415	EE	1999-161	19971017
$\mathbf{T} \mathbf{W}$	530065	В	20030501	TW	1997-86115382	19971018
NO	9901832	A	19990617	NO	1999-1832	19990416
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ΕP	1997-946273	A3	19971017			
WO	1997-US18968	W	19971017			

AP 1999-1512

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W: GH, KE, LS, MW, SD, SZ, UG, ZW

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

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20010606

PRAI

AP 1019

US 1999-293247

US 2001-875390

MARPAT 128:321945

ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 7 OF 7 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN L2 Serine proteases are the most studied class of AB proteolytic enzymes and a primary target for drug discovery. Despite the large number of inhibitors developed so far, very few make contact with the prime site of the enzyme, which constitutes an almost untapped opportunity for drug design. In the course of our studies on the serine protease NS3/4A of hepatitis C virus (HCV), we found that this enzyme is an excellent example of both the opportunities and the challenges of such design. had previously reported on two classes of peptide inhibitors of the enzyme: (a) product inhibitors, which include the P6-P1 region of the substrate and derive much of their binding energy from binding of their C-terminal carboxylate in the active site, and (b) decapeptide inhibitors, which span the S6-S4' subsites of the enzyme, whose P2'-P4' tripeptide fragment crucially contributes to potency. Here we report on further work, which combined the key binding elements of the two series and led to the development of inhibitors binding exclusively to the prime site of NS3 We prepared a small combinational library of tripeptides, capped with a variety of constrained and unconstrained diacids. The SAR was derived from multiple analogues of the initial micromolar lead. Binding of the inhibitor(s) to the enzyme was further characterized by circular dichroism, site-directed mutagenesis, a probe displacement assay, and NMR to unequivocally prove that, according to our design, the bound inhibitor(s) occupies (occupy) the S' subsite and the active site of the protease. In addition, on the basis of the information collected, the tripeptide series was evolved toward reduced peptide character, reduced molecular weight, and higher potency. Beyond their interest as HCV antivirals, these compounds represent the first example of prime site inhibitors of a serine protease. We further suggest that the design of an inhibitor with an analogous binding mode may be possible for other serine proteases.

- AN 2002:315158 BIOSIS
- DN PREV200200315158
- TI Prime site binding inhibitors of a serine protease: NS3/4A of hepatitis C virus.
- AU Ingallinella, Paolo; Fattori, Daniela; Altamura, Sergio; Steinkuhler, Christian; Koch, Uwe; Cicero, Daniel; Bazzo, Renzo; Cortese, Riccardo; Bianchi, Elisabetta; Pessi, Antonello [Reprint author]
- CS Biopolymers Laboratory, Department of Molecular and Cell Biology, IRBM P. Angeletti, Via Pontina Km 30.600, 00040, Pomezia (Rome), Italy antonello pessi@merck.com
- SO Biochemistry, (April 30, 2002) Vol. 41, No. 17, pp. 5483-5492. print. CODEN: BICHAW. ISSN: 0006-2960.
- DT Article
- LA English
- ED Entered STN: 29 May 2002 Last Updated on STN: 29 May 2002

09/909012

(FILE 'REGISTRY' ENTERED AT 16:12:00 ON 17 FEB 2005) L3 STR 30 22 23 25 32 33 CH3 0 0 0 0 Cb 11 13 15 ∨ C -~ NH ~ C -~ C -~ NH ~ C -~ C -~ NH ~ C -~ C -~ C -∨ NH
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Page 1-A

 \sim CO2H 21

Page 1-B

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY UNS AT 33

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 33

STEREO ATTRIBUTES: NONE

L5 35 SEA FILE=REGISTRY SSS FUL L3

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ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN L6

ACCESSION NUMBER:

2002:90007 CAPLUS DOCUMENT NUMBER: 136:151439

TITLE:

Preparation of novel peptides as NS3-serine protease

35 ANSWERS

inhibitors of hepatitis C virus

INVENTOR(S):

Saksena, Anil K.; Girijavallabhan, Viyyoor Moopil; Bogen, Stephane L.; Lovey, Raymond G.; Jao, Edwin E.; Bennett, Frank; McCormick, Jinping L.; Wang, Haiyan; Pike, Russell E.; Liu, Yi-Tsung; Chan, Tin-Yau; Zhu,

Zhaoning; Arasappan, Ashok; Chen, Kevin X.; Venkatraman, Srikanth; Parekh, Tejal N.; Pinto, Patrick A.; Santhanam, Bama; Njoroge, F. George; Ganguly, Ashit K.; Vaccaro, Henry A.; Kemp, Scott Jeffrey; Levy, Odile Esther; Lim-Wilby, Marguerita;

Tamura, Susan Y.

PATENT ASSIGNEE(S):

Schering Corporation, USA; Corvas International, Inc.

09/909012

PCT Int. Appl., 188 pp. CODEN: PIXXD2 SOURCE:

DOCUMENT TYPE:

Patent English

LANGUAGE: FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	PATENT NO.						KIND DATE		APPLICATION NO.						DATE			
	2002008187 2002008187							WO 2	001-	US22	20010719							
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	R:						ES, RO,					LI,	LU,	NL,	SE,	MC,	PT,	
RD	2001					11,		0610	C1,	RR 2	001-	1266	6		2	0010	719	
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	2003															0030		
PRIORIT											000-				P 2	0000	721	
										WO 2	001-	US22	813	1	W 2	0010	719	
OTHER SO	HER SOURCE(S):				MAR	PAT	136:	1514	39									

Novel peptides I [G, J, Y = independently H, alkyl, alkyl-aryl, heteroalkyl, heteroaryl, aryl-heteroaryl, alkyl-heteroaryl, cycloalkyl, alkoxy, alkyl-aryloxy, aryloxy, heteroaryloxy, heterocycloalkyloxy, cycloalkyloxy, alkylamino, arylamino, alkyl-arylamino, arylamino, heteroarylamino, cycloalkylamino, and heterocycloalkylamino; Z = O, N, CH; W = null, CO, CS, SO2; R1 = COR5, B(OR)2; R5 = H, OH, OR8, NR9R10, CF3, C2F5, C3F7, CF2R6, R6, COR7; R7 = H, OH, OR8, CHR9R10, NR9R10; R6, R8-10 = independently H, alkyl, aryl, heteroalkyl, cycloalkyl, arylalkyl, peptide derivative, etc.; R, R2-4 = independently H, alkyl, alkenyl, cycloalkyl, heterocycloalkyl, alkoxy, aryloxy, alkylthio, arylthio, amino, amido, ester, carboxylic acid, carbamate, etc.] and their pharmaceutically salts which have hepatitis C virus (HCV) protease inhibitory activity were prepared via solution or solid-phase peptide coupling methods. Thus,

peptide

II was prepared using solid-phase methods and showed a Ki value in the range of 0--100~nM for HCV protease inhibitory activity. This invention also discloses pharmaceutical compns. comprising such compds. as well as methods of using them to treat disorders associated with the HCV protease.

IT 393580-17-1P 393580-18-2P 393580-25-1P 393580-27-3P 393580-30-8P 393580-34-2P 393580-36-4P 393580-37-5P 393580-38-6P 393580-42-2P 393580-43-3P 393580-44-4P 393580-45-5P 393580-46-6P 393580-47-7P 393580-48-8P 393580-49-9P 393580-50-2P 393580-51-3P 393580-52-4P 393580-53-5P 393580-80-8P 393582-07-5P 393582-08-6P 393582-28-0P 393582-30-4P 393582-31-5P 393582-32-6P 393582-57-5P 393582-58-6P 394203-67-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(Uses)

(preparation of novel peptides as NS3-serine protease inhibitors of hepatitis C virus)

RN 393580-17-1 CAPLUS

CN Glycine, (2S)-2-cyclohexyl-N-[(2-methylpropoxy)carbonyl]glycyl-4-chloro-L-phenylalanyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 393580-18-2 CAPLUS

CN Glycine, (2S)-2-cyclohexyl-N-[(2-methylpropoxy)carbonyl]glycyl-4-fluoro-L-phenylalanyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 393580-25-1 CAPLUS

CN Glycine, (2S)-2-cyclohexyl-N-[(2-methylpropoxy)carbonyl]glycyl-L-leucyl-3-amino-5-methyl-2-oxohexanoyl-2-13C-glycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 393580-27-3 CAPLUS

CN Glycine, (2S)-2-cyclohexyl-N-[(2-methylpropoxy)carbonyl]glycyl-4,5-didehydro-L-norvalyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 393580-30-8 CAPLUS

CN Glycine, (2S)-2-cyclohexyl-N-[(2-methylpropoxy)carbonyl]glycyl-3-[1,1'-biphenyl]-4-yl-L-alanyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 393580-34-2 CAPLUS

CN Glycine, 2-cyclohexyl-N-[(2-methylpropoxy)carbonyl]glycyl-3-(1,3-dithian-2-yl)alanyl-3-amino-2-oxohexanoylglycyl-2-phenyl- (9CI) (CA INDEX NAME)

RN 393580-36-4 CAPLUS

CN Glycine, 2-cyclohexyl-N-[(2-methylpropoxy)carbonyl]glycyl-3-(1,3-dithiolan-2-yl)alanyl-3-amino-2-oxohexanoylglycyl-2-phenyl- (9CI) (CA INDEX NAME)

RN 393580-37-5 CAPLUS

CN Glycine, (2S)-N-[(2-methylpropoxy)carbonyl]-2-[1-[[2-(trimethylsilyl)ethoxy]carbonyl]-4-piperidinyl]glycyl-L-leucyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Ph O H O I-BU NH

PAGE 1-B

__SiMe3

RN 393580-38-6 CAPLUS

CN Glycine, (2S)-N-[(2-methylpropoxy)carbonyl]-2-(4-piperidinyl)glycyl-L-leucyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 393580-42-2 CAPLUS

CN Glycine, (2S)-2-[1-[(9H-fluoren-9-ylmethoxy)carbonyl]-4-piperidinyl]-N-[(2-methylpropoxy)carbonyl]glycyl-L-leucyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

RN 393580-43-3 CAPLUS

CN Glycine, (2S)-2-(1-benzoyl-4-piperidinyl)-N-[(2-methylpropoxy)carbonyl]glycyl-L-leucyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 393580-44-4 CAPLUS

CN Glycine, (2S)-2-[1-(4-carboxybenzoyl)-4-piperidinyl]-N-[(2-methylpropoxy)carbonyl]glycyl-L-leucyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

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RN 393580-45-5 CAPLUS

CN Glycine, (2S)-2-[1-[4-(aminosulfonyl)benzoyl]-4-piperidinyl]-N-[(2-methylpropoxy)carbonyl]glycyl-L-leucyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

RN 393580-46-6 CAPLUS

CN Glycine, (2S)-2-(1-acetyl-4-piperidinyl)-N-[(2-methylpropoxy)carbonyl]glycyl-L-leucyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 393580-47-7 CAPLUS

CN Glycine, (2S)-2-[1-(3,3-dimethyl-1-oxobutyl)-4-piperidinyl]-N-[(2-methylpropoxy)carbonyl]glycyl-L-leucyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 393580-48-8 CAPLUS

CN Glycine, (2S)-2-[1-(cyclohexylacetyl)-4-piperidinyl]-N-[(2-methylpropoxy)carbonyl]glycyl-L-leucyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

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RN 393580-49-9 CAPLUS

CN Glycine, (2S)-2-[1-(cyclopentylcarbonyl)-4-piperidinyl]-N-[(2-methylpropoxy)carbonyl]glycyl-L-leucyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 393580-50-2 CAPLUS

CN Glycine, (2S)-2-[1-[(acetylamino)acetyl]-4-piperidinyl]-N-[(2-methylpropoxy)carbonyl]glycyl-L-leucyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 393580-51-3 CAPLUS

CN Glycine, (2S)-2-[1-[(2S)-4-methyl-2-[(methylsulfonyl)amino]-1-oxopentyl]-4-piperidinyl]-N-[(2-methylpropoxy)carbonyl]glycyl-L-leucyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 393580-52-4 CAPLUS

CN Glycine, 2-cyclohexyl-N-[(2-methylpropoxy)carbonyl]glycyl-3-cyclopropylalanyl-3-amino-2-oxohexanoylglycyl-2-phenyl-(9CI) (CA INDEX NAME)

RN 393580-53-5 CAPLUS

CN Glycine, 2-cyclohexyl-N-[(2-methylpropoxy)carbonyl]glycyl-3-(1,5-dihydro-2,4-benzodithiepin-3-yl)alanyl-3-amino-2-oxohexanoylglycyl-2-phenyl-(9CI) (CA INDEX NAME)

RN 393580-54-6 CAPLUS

CN Glycine, 2-cyclohexyl-N-[(2-methylpropoxy)carbonyl]glycyl-3-(1,3-dioxan-2-yl)alanyl-3-amino-2-oxohexanoylglycyl-2-phenyl- (9CI) (CA INDEX NAME)

RN 393580-56-8 CAPLUS

CN Glycine, 2-cyclohexyl-N-[(2-methylpropoxy)carbonyl]glycyl-3-(1,3-dioxolan-

2-yl)alanyl-3-amino-2-oxohexanoylglycyl-2-phenyl- (9CI) (CA INDEX NAME)

RN 393580-62-6 CAPLUS

CN Glycine, (2S)-2-cyclopentyl-N-[(2-methylpropoxy)carbonyl]glycyl-L-leucyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 393580-80-8 CAPLUS

CN Glycine, 2-cyclohexyl-N-[(2-methylpropoxy)carbonyl]glycyl-4,5-dihydroxynorvalyl-3-amino-2-oxohexanoylglycyl-2-phenyl- (9CI) (CA INDEX NAME)

RN 393582-07-5 CAPLUS

CN Glycine, (2S)-2-cyclohexyl-N-[(3-methoxy-2,2-dimethyl-3-

oxopropoxy)carbonyl]glycyl-L-leucyl-3-amino-2-oxohexanoylglycyl-2-phenyl-,
(2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 393582-08-6 CAPLUS

CN Glycine, (2S)-2-cyclohexyl-N-[(2-methylpropoxy)carbonyl]glycyl-L-leucyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 393582-28-0 CAPLUS

CN Glycine, (2S)-N-[(2-methylpropoxy)carbonyl]-2-phenylglycyl-L-leucyl-3-amino-5-methyl-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 393582-29-1 CAPLUS

CN Glycine, (2S)-N-[(2-methylpropoxy)carbonyl]-2-phenylglycyl-3-(1,3-dithiolan-2-yl)-L-alanyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 393582-30-4 CAPLUS

CN Glycine, (2S)-N-[(2-methylpropoxy)carbonyl]-2-phenylglycyl-3-cyclopropyl-L-alanyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 393582-31-5 CAPLUS

CN Glycine, (2S)-N-[(2-methylpropoxy)carbonyl]-2-phenylglycyl-3-(1,3-dioxolan-2-yl)-L-alanyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 393582-32-6 CAPLUS

CN Glycine, (2S)-N-[(2-methylpropoxy)carbonyl]-2-phenylglycyl-3-(1,3-dioxan-2-yl)-L-alanyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 393582-57-5 CAPLUS

CN Glycine, (2S)-2-cyclohexyl-N-[(2-methylpropoxy)carbonyl]glycyl-3-cyclobutyl-L-alanyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 393582-58-6 CAPLUS

CN Glycine, (2S)-2-cyclohexyl-N-[(2-methylpropoxy)carbonyl]glycyl-O-phenyl-L-homoseryl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 394203-67-9 CAPLUS

CN Glycine, (2S)-N-[(2-methylpropoxy)carbonyl]-2-(tetrahydro-1-oxido-2H-thiopyran-4-yl)glycyl-L-leucyl-3-amino-2-oxohexanoylglycyl-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

FILE 'CAOLD' ENTERED AT 16:18:17 ON 17 FEB 2005 L7 0 S L5

FILE 'USPATFULL' ENTERED AT 16:18:27 ON 17 FEB 2005 L8 1 S L5

L8 ANSWER 1 OF 1 USPATFULL on STN

ACCESSION NUMBER: 2002:288093 USPATFULL

TITLE: Novel peptides as NS3-serine protease inhibitors of

hepatitis C virus

INVENTOR(S): Saksena, Anil K., Upper Montclair, NJ, UNITED STATES

Girijavallabhan, Viyyoor Moopil, Parsippany, NJ, UNITED

STATES

Bogen, Stephane L., Somerset, NJ, UNITED STATES

09/909012

Lovey, Raymond G., West Caldwell, NJ, UNITED STATES Jao, Edwin E., Warren, NJ, UNITED STATES Bennett, Frank, Piscataway, NJ, UNITED STATES Mc Cormick, Jinping L., Edison, NJ, UNITED STATES Wang, Haiyan, Cranbury, NJ, UNITED STATES Pike, Russell E., Stanhope, NJ, UNITED STATES Liu, Yi-Tsung, Morris Township, NJ, UNITED STATES Chan, Tin-Yau, Edison, NJ, UNITED STATES Zhu, Zhaoning, East Windsor, NJ, UNITED STATES Arasappan, Ashok, Bridgewater, NJ, UNITED STATES Chen, Kevin X., Iselin, NJ, UNITED STATES Venkatraman, Srikanth, Fords, NJ, UNITED STATES Parekh, Tejal, Mountain View, CA, UNITED STATES Pinto, Patrick A., Morris Plains, NJ, UNITED STATES Santhanam, Bama, Bridgewater, NJ, UNITED STATES Njoroge, F. George, Warren, NJ, UNITED STATES Ganguly, Ashit K., Upper Montclair, NJ, UNITED STATES Vaccaro, Henry A., South Plainfield, NJ, UNITED STATES Kemp, Scott Jeffrey, San Diego, CA, UNITED STATES Levy, Odile Esther, San Diego, CA, UNITED STATES Lim-Wilby, Marguerita, La Jolla, CA, UNITED STATES Tamura, Susan Y., Santa Fe, NM, UNITED STATES

NUMBER DATE

PRIORITY INFORMATION: US 2000-220107P 20000721 (60)

DOCUMENT TYPE: Utility

PATENT INFORMATION:
APPLICATION INFO.:

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: SCHERING-PLOUGH CORPORATION, PATENT DEPARTMENT (K-6-1,

1990), 2000 GALLOPING HILL ROAD, KENILWORTH, NJ,

07033-0530

NUMBER OF CLAIMS: 40 EXEMPLARY CLAIM: 1 LINE COUNT: 2831

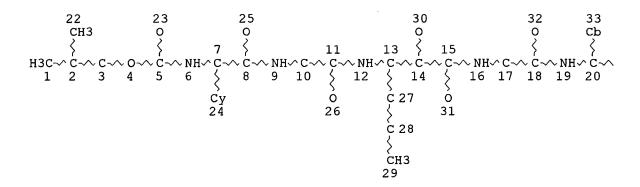
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention discloses novel peptide compounds which have HCV protease inhibitory activity as well as methods for preparing such compounds. In another embodiment, the invention discloses pharmaceutical compositions comprising such compounds as well as methods of using them to treat disorders associated with the HCV protease.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

(FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 16:18:46 ON 17 FEB 2005)
L9 0 S L5

(FILE 'MARPAT' ENTERED AT 16:19:32 ON 17 FEB 2005)



Page 1-A

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Page 1-B NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM MLEVEL IS CLASS AT 24 33 IS MCY UNS AT 33 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 33

STEREO ATTRIBUTES: NONE

ATTRIBUTES SPECIFIED AT SEARCH-TIME: ECLEVEL IS LIM ON ALL NODES ALL RING(S) ARE ISOLATED

L12 1 SEA FILE=MARPAT SSS FUL L10 (MODIFIED ATTRIBUTES)

1 ANSWERS 100.0% PROCESSED 5620 ITERATIONS SEARCH TIME: 00.00.14

L12 ANSWER 1 OF 1 MARPAT COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

136:151439 MARPAT

TITLE: Preparation of novel peptides as NS3-serine protease

inhibitors of hepatitis C virus

INVENTOR(S): Saksena, Anil K.; Girijavallabhan, Viyyoor Moopil; Bogen, Stephane L.; Lovey, Raymond G.; Jao, Edwin E.; Bennett, Frank; McCormick, Jinping L.; Wang, Haiyan;

Pike, Russell E.; Liu, Yi-Tsung; Chan, Tin-Yau; Zhu, Zhaoning; Arasappan, Ashok; Chen, Kevin X.; Venkatraman, Srikanth; Parekh, Tejal N.; Pinto, Patrick A.; Santhanam, Bama; Njoroge, F. George; Ganguly, Ashit K.; Vaccaro, Henry A.; Kemp, Scott Jeffrey; Levy, Odile Esther; Lim-Wilby, Marguerita;

Tamura, Susan Y.

09/909012

Schering Corporation, USA; Corvas International, Inc. PCT Int. Appl., 188 pp. PATENT ASSIGNEE(S):

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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AB Novel peptides I [G, J, Y = independently H, alkyl, alkyl-aryl, heteroalkyl, heteroaryl, aryl-heteroaryl, alkyl-heteroaryl, cycloalkyl, alkoxy, alkyl-aryloxy, aryloxy, heteroaryloxy, heterocycloalkyloxy, cycloalkyloxy, alkylamino, arylamino, alkyl-arylamino, arylamino, heteroarylamino, cycloalkylamino, and heterocycloalkylamino; Z = O, N, CH; W = null, CO, CS, SO2; R1 = COR5, B(OR)2; R5 = H, OH, OR8, NR9R10, CF3, C2F5, C3F7, CF2R6, R6, COR7; R7 = H, OH, OR8, CHR9R10, NR9R10; R6, R8-10 = independently H, alkyl, aryl, heteroalkyl, cycloalkyl, arylalkyl, peptide derivative, etc.; R, R2-4 = independently H, alkyl, alkenyl, cycloalkyl, heterocycloalkyl, alkoxy, aryloxy, alkylthio, arylthio, amino, amido, ester, carboxylic acid, carbamate, etc.] and their pharmaceutically salts which have hepatitis C virus (HCV) protease inhibitory activity were prepared via solution or solid-phase peptide coupling methods. Thus, peptide

II was prepared using solid-phase methods and showed a Ki value in the range of 0--100 nM for HCV protease inhibitory activity. This invention also discloses pharmaceutical compns. comprising such compds. as well as methods of using them to treat disorders associated with the HCV protease. ICM C07D209-02

ICS C07D211-04; C07D233-56; C07D317-10; C07D319-04; C07D339-02; C07D339-08; C07C229-00; C07C233-05; C07C271-08; C07C271-32; A61K031-16; A61K031-27; A61K031-195; A61K031-357; A61K031-385; A61K031-403; A61K031-445; A61K031-4164

- CC 34-3 (Amino Acids, Peptides, and Proteins) Section cross-reference(s): 1, 7, 63
- ST peptide prepn NS3 serine protease inhibitor; hepatitis C virus treatment peptide
- IT Antiviral agents

IC

(pharmaceutical composition component; preparation of novel peptides as NS3-serine protease inhibitors of hepatitis C virus)

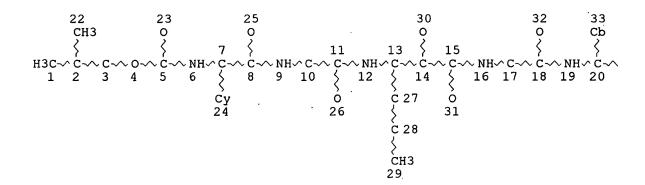
IT Interferons
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

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(pharmaceutical composition component; preparation of novel peptides as
        NS3-serine protease inhibitors of hepatitis C virus)
ΙT
     Peptides, preparation
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (preparation of novel peptides as NS3-serine protease inhibitors of
        hepatitis C virus)
IT
     Hepatitis C virus
        (treatment; preparation of novel peptides as NS3-serine protease
inhibitors
        of hepatitis C virus)
TT
     Interferons
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (\alpha,\ pharmaceutical\ composition\ component;\ preparation\ of\ novel\ peptides
as
        NS3-serine protease inhibitors of hepatitis C virus)
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     36791-04-5, Ribavirin
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (pharmaceutical composition component)
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     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation of novel peptides as NS3-serine protease inhibitors of
        hepatitis C virus)
                               THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS
REFERENCE COUNT:
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Page 1-B NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM MLEVEL IS CLASS AT 24 33 GGCAT IS MCY UNS AT 33 DEFAULT ECLEVEL IS LIMITED

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STEREO ATTRIBUTES: NONE

ATTRIBUTES SPECIFIED AT SEARCH-TIME: ECLEVEL IS LIM ON ALL NODES ALL RING(S) ARE ISOLATED

L13 O SEA FILE=MARPATPREV SSS FUL L10 (MODIFIED ATTRIBUTES)

100.0% PROCESSED 0 ANSWERS 5 ITERATIONS

SEARCH TIME: 00.00.01

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